

myDRE Highlevel Architecture

Introduction

This article describes the myDRE High-level Architecture.



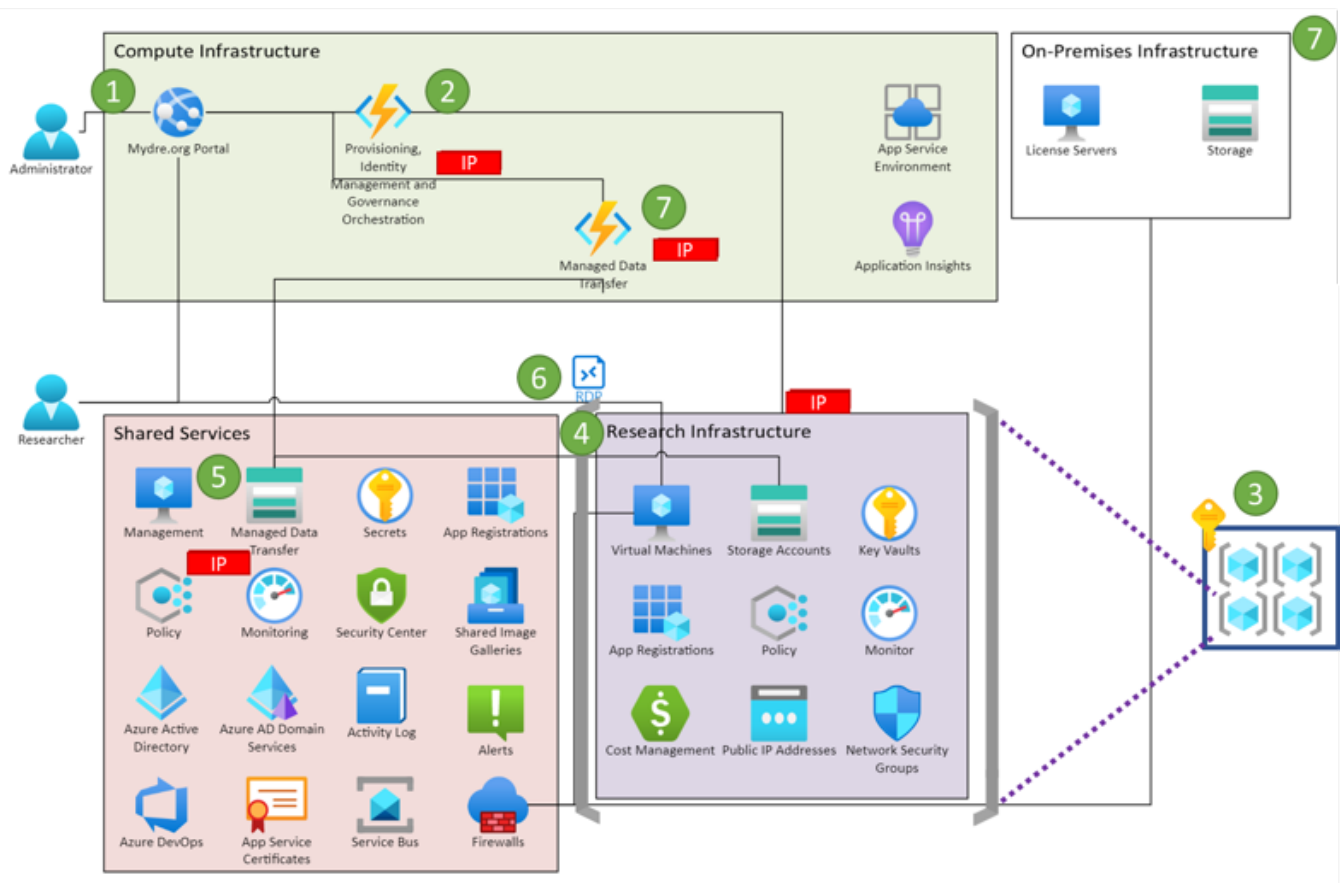
Note:

1. Development, Acceptance, and Production are separated environments.

Description

1. **Compute Infrastructure.** myDRE.org Portal serves as the frontend for the solution offering self-services capabilities for administrators and researchers alike. The web infrastructure runs on isolated infrastructure in an App Service Environment
2. The provisioning engine handles resource provisioning, RBAC, App registrations and configuration for the research workloads.
3. **The Workspace Infrastructure** is a Microsoft Azure Subscription under the billing account of the Tenant.
 1. The Workspace Infrastructure runs under the billing account of the Tenant, it is controlled and managed via myDRE AAD
 2. The Workspace Infrastructure uses the billing agreement of the Tenant for all resources deployed in the Research Infrastructure
 3. A Tenant can have one or more Workspace Infrastructures (=a Microsoft Azure Subscription)
 1. Per Workspace Infrastructure it must be decided to which Microsoft Azure Region, On-Premise Infrastructure it will be connected
 2. See also: [Multi-Region Implementation](#)

4. **The Research Infrastructure** includes VMs, SMB File Shares, and related network and security infrastructure
 1. The Research Infrastructure is governed by the policies of the Workspace Infrastructure
5. **The Shared Services** enable provisioning, identity management, governance and security, using Azure Services.
 1. The Shared Services run under the billing agreement of anDREa
 2. The Shared Services uses the billing agreement of the Tenant
6. The researchers connect to the VMs using RDP, the resource IPs are added to allow-list JIT and are cleaned up daily
7. **On-Premises Infrastructure**. Virtual machines can optionally connect to the tenant's on-premises infrastructure for specific use cases like License Servers or Storage services
 1. See for more details: [License Server Access from anDREa](#)
 2. The On-Premise Infrastructure is fully managed by the Tenant
8. All ingress of data is authorized and all egress of data is through an approval flow enabled by the managed data transfer services

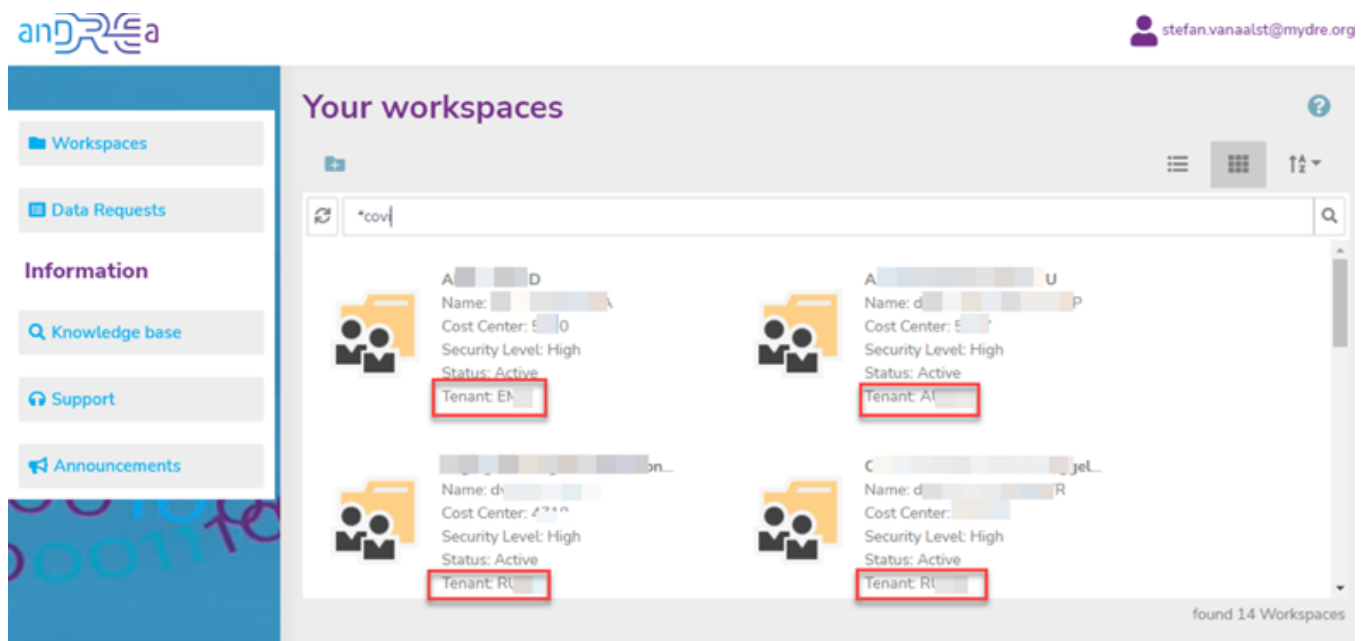


User exposure (examples)

The myDRE High-level Architecture is the design behind the user interfaces like:

Workspace Infrastructure

The users will see all the Workspaces they are member off; including Workspaces belonging to different Tenants.



Research Infrastructure

Depending on the role, users can (re)configure their resources in a friendly and easy way. Like resizing a Virtual Machine, changing the deallocation time, ingress and egress data, add and remove members, add and turn on/off IP whitelisting.

The screenshot displays the myDRE Highlevel Architecture web interface. The top navigation bar includes the myDRE logo, a user profile for 'stefan.vanaalst@mydre.org', and a settings gear icon. Below this is a tabbed interface with 'Virtual Machines' selected, alongside 'Files', 'Members', 'Costs', 'External Access', and 'Info & Contact'. A toolbar with various icons for actions like play, stop, and delete is visible. A search bar is located below the toolbar. The main content area lists four virtual machines:

- dw-...-r1**: WindowsStandard version 1.0.0, Status: **deallocated**, 2 cores, 4 Gb RAM (Standard_B2s), Private IP: 10.210.194.52, Auto-shutdown: 19:00 (UTC+01:00).
- Deze VM gebruiken**: WindowsStandard version 1.0.0, Status: **deallocated**, 2 cores, 8 Gb RAM (Standard_B2ms), Private IP: 10.210.194.53, Auto-shutdown: 23:00 (UTC+01:00).
- dw-...-rver3**: Centos-Base2 version 1.0.2, Status: **deallocated**, 1 cores, 2 Gb RAM (Standard_B1ms), Private IP: 10.210.194.54, Auto-shutdown: 19:00 (UTC+01:00).
- dw-...-r4**: Windows-andREa version 1.0.0, Status: **deallocated**, 1 cores, 2 Gb RAM (Standard_B1ms), Private IP: 10.210.194.55, Auto-shutdown: 19:00 (UTC+01:00).

The left sidebar contains links for 'Workspaces', 'Data Requests', 'Information', 'Knowledge base', 'Support', and 'Announcements'.